

ANNUAL REPORT 1970

AR20





Head Office: Three Calgary Place, 355 Fourth Avenue S.W., Calgary 1, Alberta

# **Directors**

- E. R. BARNETT, Calgary, Alberta
- D. L. BOHANNAN, Calgary, Alberta
- H. J. CAINE, Calgary, Alberta
- A. E. FELDMEYER, Calgary, Alberta
- T. F. C. FROST, London, England
- D. C. L. JONES, Calgary, Alberta
- H. B. KECK, Los Angeles, California
- W. M. KECK, Jr., Los Angeles, California
- R. B. LAWSON, Calgary, Alberta
- J. W. PYLE, Calgary, Alberta
- G. H. STEER, Q.C., Edmonton, Alberta

### **Officers**

- A. E. FELDMEYER, President
- E. R. BARNETT, Senior Vice-President
- D. L. BOHANNAN, Vice-President
- H. J. CAINE, Vice-President
- R. B. LAWSON, Vice-President
- D. C. L. JONES, Secretary and General Counsel
- J. W. PYLE, Treasurer
- E. J. BETHELL, Comptroller
- T. J. EMERSON, Assistant Secretary
- R. C. SCHRADER, Assistant Secretary
- R. C. MACDONALD, Assistant Secretary

### **Auditors**

PRICE WATERHOUSE & CO., Calgary, Alberta

# **Transfer Agents**

THE ROYAL TRUST COMPANY

Calgary, Alberta; Vancouver, British Columbia; Winnipeg, Manitoba; Toronto, Ontario; Montreal, Quebec; Saint John, New Brunswick; and Halifax, Nova Scotia.

THE BANK OF NEW YORK New York, New York 10015

### Registrars

THE ROYAL TRUST COMPANY

Calgary, Alberta; Vancouver, British Columbia; Winnipeg, Manitoba; Toronto, Ontario; Montreal, Quebec; Saint John, New Brunswick; and Halifax, Nova Scotia.

FIRST NATIONAL CITY BANK

111 Wall Street

New York, New York 10015

### **Stock Exchange Listings**

AMERICAN STOCK EXCHANGE PACIFIC COAST STOCK EXCHANGE TORONTO STOCK EXCHANGE

# **Highlights**

	1970	1969
Gross Revenue	\$38,003,599	\$33,711,153
Funds provided from operations - before		
drilling and exploration expenditures	\$22,876,939	\$22,577,054
Per Share	\$2.69	\$2.66
Income before extraordinary item	\$ 2,893,603	\$ 4,070,744
Per Share	\$ .34	\$ .48
Extraordinary item	\$ 807,462	-
Per Share	\$ .10	-
Net Income	\$ 3,701,065	\$ 4,070,744
Per Share	\$ .44	\$ .48
Working Capital at Year-End	\$17,770,050	\$ 7,210,005
Average Net Daily Sales:		
Crude Oil (Bbls.)	20,384	18,612
Condensate (Bbls.)	6,525	5,006
Propane and Butane (Bbls.)	3,847	2,771
Total Oil and Gas Liquids	30,756	26,389
Residue Gas (Mcf.)	139,033	99,797
Sulphur (Long Tons)	651	534
Net Acreage in Canada	9,898,492	9,198,557

# **Annual Meeting**

The Annual Meeting of shareholders will be held on Friday, April 23, 1971, at 10:00 a.m. in the Company's Board Room, Three Calgary Place, 355 Fourth Avenue S.W., Calgary, Alberta. A formal notice of this meeting, together with the proxy statement and information circular and form of proxy, is being mailed with this report.

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Drilling crew teamwork at Cremona well 25 miles northwest of Calgary.

# Directors' Report



# To The Shareholders:

# **Financial**

Gross revenue of \$38 million in 1970 (before a non-recurring gain on the sale of securities of \$807,462) was the highest in the company's history and represented a 12.7% increase over the previous year. Funds generated from operations before drilling and exploration expenditures amounted to \$22.9 million, or \$2.69 per share as compared with \$22.6 million, or \$2.66 per share in 1969.

Net income, including a non-recurring gain of \$807,462 amounted to \$3,701,065, or  $44\phi$  per share compared with net income in the previous year of \$4,070,744, or  $48\phi$  per share.

Revenue from the sale of oil, condensate and liquid petroleum products increased 17% to \$26.8 million. Gas sales of \$8 million represented an increase of 44% and accounted for 22% of gross operating income. Sulphur sales, although higher in volume than in the previous year, fell \$2.4 million, or 58% because of the continuing deterioration in the world supply-demand situation.

The marginal increase in funds provided from operations and the reduction in net income are a reflection of several factors; operating expenses of new plants at Ferrier and Kaybob, expanded facilities to meet anticipated higher allowables in 1971, sulphur inventory price adjustments and higher income tax provisions. Exploration and intangible drilling expenses charged to income increased from \$9.8 million to \$10.4 million.

Capital expenditures for lease acquisition, gas plants, well and lease equipment and other fixed assets totalled \$11,150,314 compared to \$13,306,928 in the prior year.

# **Exploration**

Your company's seismic exploration activity was concentrated along the foothills of the Rocky Mountains of Alberta, in northeastern British Columbia, the Northwest Territories and in the Beaufort Sea area of the Mackenzie Delta.

The company participated directly or indirectly in the drilling of 171 exploratory and development wells in Canada, 3 in offshore Texas and 2 in the Arafura Sea in Indonesia. Eighty-nine wells were productive of oil or gas and 87 were abandoned. Sixty-eight of the total wells were drilled under farmout agreements and involved little or no cash outlay by the company.

# **Production**

During 1970 there was a significant increase in production over 1969. Crude oil and liquid products production rose 16.5%, natural gas 39.3% and sulphur 15%.

# **Employees**

At the year-end, the company's staff totalled 368 employees including 17 in Sydney, Australia. These people have contributed significantly to the growth of the company over the past year and their efforts and achievements are greatly appreciated by the directors.

In May 1970, after a thorough study of the needs of Canadian Superior as an expanding corporation, the staff and offices were consolidated in new modern headquarters located in downtown Calgary.

### Outlook

The price of crude oil increased by  $25\phi$  per barrel on the Canadian market in mid-December. This was the first general increase in oil prices in over eight years. As exploration activities move to the more remote areas, the attendant cost of finding and developing new energy reserves escalates and further price increases will become essential.

The outlook for 1971 is an encouraging one for the company, with anticipated higher exports of oil and gas to the United States coupled with the recent price increase.

ON BEHALF OF THE BOARD,

March 5, 1971

G. E. Flldmeyer

# **Exploration**

Canadian Superior's exploration activity during 1970 in the form of seismic work and exploratory drilling maintained a level similar to the previous year. However, greater emphasis was placed on the search for deeper reservoirs in the foothills of Alberta and British Columbia and for new prospects in the Northwest Territories.

Within the Canadian Arctic, extensive marine seismic surveys were conducted on company permits adjacent to the Mackenzie Delta in the Beaufort Sea. Farther north on the archipelago, seismic programs are planned for commencement during the 1971 summer season.

On the Continental Shelf, off Canada's east coast, Canadian Superior acquired acreage in the Gulf of St. Lawrence. Two seismic projects are planned for 1971; one on the Grand Banks and the other an extensive participation program on the Scotia Shelf.

During 1970, the company participated in 5,225 miles of seismic surveys in southwestern and northwestern Alberta, northeastern British Columbia, as well as in the southern portion of the Northwest Territories and the Beaufort Sea.

One hundred exploratory wells were drilled of which 13 were considered to be oil discoveries and 16 gas discoveries. Of these exploratory tests, 58 were farmed out to other companies and drilled at no cost to your company.

One important area of focus for Canadian Superior is the deep Devonian Leduc reef-prone area which extends from northeastern British Columbia southward along the foothills of the Rocky Mountains to southwestern Alberta. This formation gained the industry's attention in 1967 when natural gas was discovered at Strachan, Alberta. Since that time, step-outs to the discovery have revealed significant gas reserves in the area.

# Strachan-Cochrane, Southwestern Alberta

The area between Strachan and Cochrane (see map) is currently undergoing the most active phase of drilling and seismic assessment for deep Devonian gas in Alberta. It is here that your company is involved with partners in the drilling of two deep tests with a third pending.

Canadian Superior is participating in drilling a stepout well two miles northeast of its 1969 Beaverhill Lake deep Devonian gas discovery at Lobley. The company has a 50% interest in both the discovery and the step-out.

Another well will be drilled at Bentz, 6 miles south of the 1969 Bearberry Leduc gas discovery. Canadian Superior's interest is 50%.

A third well, located in 11-33-33-6 W5 of which your company owns 12½%, is being drilled by another operator two miles north of the Bearberry discovery.

Canadian Superior drilled a well in late December, 25 miles north of the Cochrane area, which was abandoned in January 1971 at 14,114 feet. Another well will be spudded in the first quarter of 1971.

In the Water Valley-Cochrane area, your company has a 50% interest in a drilling reservation of 17,307 acres and the same interest in 37,918 lease acres. In January 1971, a further 50% interest in a drilling reservation comprising 10,487 acres was acquired.

# Wapiti River-Fort St. John Area Northeastern British Columbia

Exploration interest by the industry for deep Devonian gas discoveries similar to Ricinus and Strachan in southwestern Alberta has been directed to the northwest along the foothills belt into British Columbia. As a result, Canadian Superior with other operators, acquired 140,000 acres in the Wapiti River area, located 110 miles south of Fort St. John.

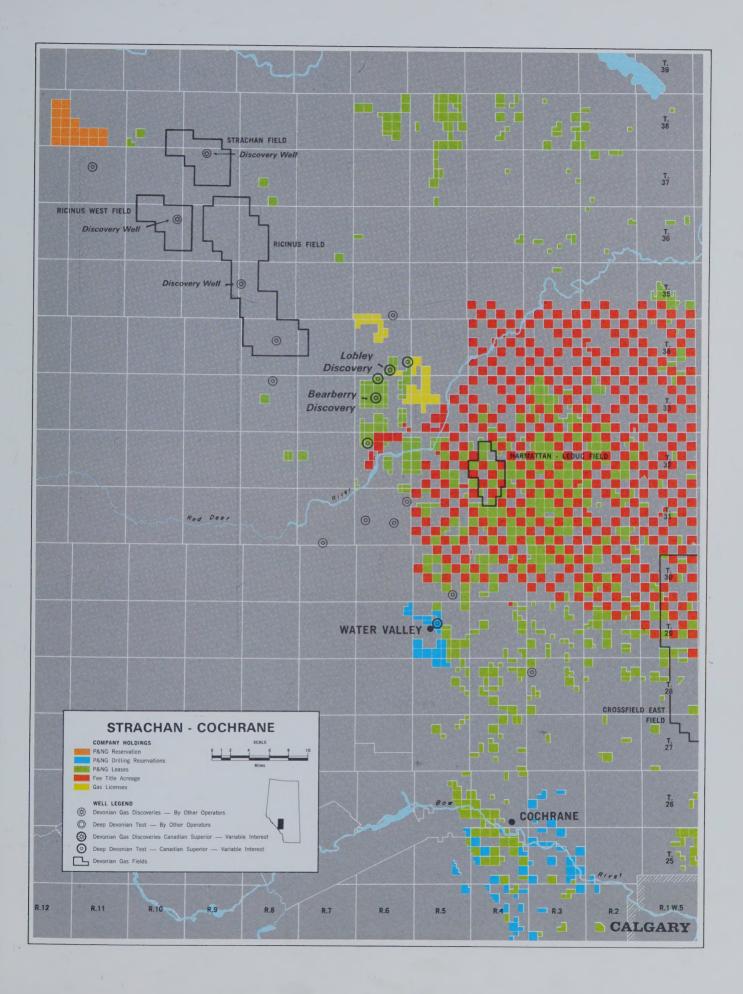
Within 50 miles south and west of Fort St. John, the company acquired varying interests in 119,000 acres. Total cost of land acquisition in both areas was \$1,700,000 shared among Canadian Superior and its partners.

### Harmattan East, South Central Alberta

What appears to be a southern extension to the Harmattan East gas field was made in October on a farmout of company fee lands where Canadian Superior retains a 50% working interest as well as a  $17\frac{1}{2}\%$  royalty interest.

The well, located 40 miles north of Calgary, has a daily deliverability of 4.1 million cubic feet of gas and 340 barrels of condensate.

A follow-up well 11/3 miles from the first well, drilled at no cost to Canadian Superior, was dry. As a result there are no immediate plans for further drilling.



# Meekwap, Central Alberta

The potential of this Devonian Nisku oilfield, first discovered in 1966, was not recognized until a much improved reservoir was found in a step-out well drilled in 1970. Since then ten oil wells have been drilled by the industry proving up the most significant new oil reserve found in Alberta in recent years. (see map).

During 1970 three wells were completed, your company having a 66% % interest in two of these wells and a 331/3 % interest in the other. Canadian Superior together with partners, drilled a step-out well on a farmout parcel which was abandoned, but as a result earned an interest in 1,920 acres. A further interest is being earned by the current drilling of a well on a four-section block. The company has also purchased a 66% % interest in 1,280 lease acres at a recent Crown Reserve sale.

Canadian Superior is participating in three of the twelve wells currently being drilled in the area. Further company drilling and participation will be contingent on the outcome of these tests.

# Nevis, South Central Alberta

In the Nevis area, a Devonian Leduc reef oil discovery was made in September on a farmout of company land. The discovery well, in which Canadian Superior retains a 50% interest, is located three-quarters of a mile south of the Nevis gas field. Although the oil pay column is about 150 feet thick, no immediate follow-up drilling is anticipated because of the limited width of the reef reservoir.

### Ebbutt, Northwest Territories

In its search for new prospects in less explored areas, Canadian Superior and a partner obtained a geophysical option on 391,000 acres located in the Ebbutt area near Fort Simpson in the southwest portion of the Northwest Territories. One well has been drilled and abandoned to date while a second is currently being drilled. These two wells will earn for your company and its partner an undivided half interest in 120,000 acres with the right to earn additional acreage by further drilling.

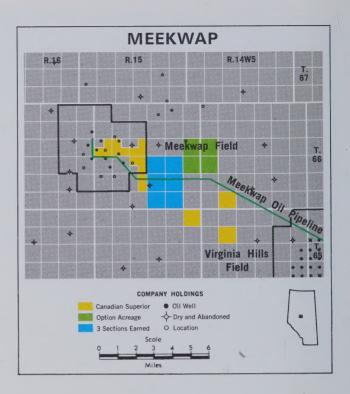
### Beaufort Sea, Canadian Arctic

A marine seismic program of 854 miles was conducted on offshore permits in which Canadian Superior owns varying interests between 25% and 50%.

The program completed in 1970 included three separate surveys; two in the Herschel Island area and one north of Tuktoyaktuk.

At Nicholson Point on the Arctic Coastal Plain, a small land seismic program was completed last summer but operational difficulties prevented a planned offshore program.

Seismic programs scheduled off the coast of Banks Island and off Nicholson Point will be completed in 1971.



# Continental Shelf, Offshore East Coast

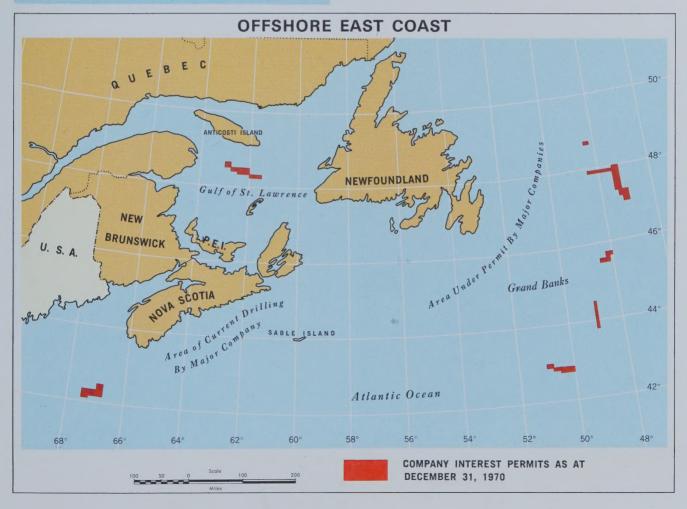
This Continental Shelf area has gained the attention of the oil industry over the past few years and with major exploratory efforts continuing, holds promise for important discoveries.

Canadian Superior is involved in three separate projects. (see map). We entered into a farmout agreement on offshore exploratory permits located on the Grand Banks off Newfoundland involving 1,234,643 acres. Your company will earn a 25% interest with an option to earn an additional 25% interest by meeting further government work commitments. The initial work commitment includes 1,000 miles of marine seismic survey work starting in 1971.

Your company is interim operator of a five-company group engaged in initiating a \$1.2 million comprehensive geophysical program to be conducted off the coast of Nova Scotia during the 1971 summer season. The purpose of the program is to locate favorable areas where leases may become available when the present permits are either relinquished or converted to lease.

In a third location, Canadian Superior acquired a 50% undivided interest in 381,281 acres of offshore permits located approximately 35 miles south of Anticosti Island in the Gulf of St. Lawrence.

Oil and Gas Net Acreage Hold at December 31, 1970	lings
CANADA	
Producing Leases	306,145
Exploratory Acreage	
Leases 2,132,473	
Reservations and permits . 1,530,196	
Arctic Islands, Yukon and N.W.T. Permits . 3,467,166	
East Coast—Permits 1,152,988	8,282,823
Fee Title Acreage	1,309,524
Total Canada	9,898,492
FOREIGN	
Exploratory Acreage	
Indonesia-Arafura Sea	5,989,697
Australia	3,164,729
Turkey	111,170 91,658
Netherlands	10,177
United Kingdom—North Sea	6,971
U.S.A.—Gulf Coast	3,270
Total Foreign	9,377,672
Total Net Acreage	19,276,164



Drilling rig at Lone Pine Creek in Southern Alberta.

# **Operations**

The company's daily average production in 1970 amounted to 20,384 barrels of crude oil, 6,525 barrels of condensate, 3,847 barrels of propane and butane, 139 million cubic feet of natural gas and 926 long tons of sulphur.

The company holds participating interests equivalent to 500 oil wells and 102 gas wells in Western Canada and varying interests in 34 gas processing plants producing residue gas, condensate, propane, butane and sulphur. These production and processing facilities represent a capital investment by the company of \$66 million.

Increased demand for export of Canadian crude oil to the United States resulted in increased production from the company's Alberta reserves. There was also a significant increase in gas sold for export out of Alberta to Eastern Canada and the United States and as a result larger amounts of gas liquids were produced.

Sulphur production increased by 15% in 1970 but due to the world over-supply position, 30% was stockpiled.

In anticipation of the higher exports of Canadian crude oil and condensate to the United States in 1971, pumping, compressor, storage and related lease and plant facilities were expanded in a number of fields in Alberta.

# Harmattan Elkton Rundle C Pool, South Central Alberta

Reservoir studies of this field were completed in 1970 to develop a program which would give optimum recovery of oil and gas.

As a result of the studies, an application was submitted to the Oil and Gas Conservation Board of Alberta for approval of a long-term operational program. Permission was requested to waterflood the northern segment of the oil zone as well as to produce gas from the southeast portion of the gas cap, at a rate of 50 million cubic feet per day until 1977. At that time it is planned to terminate gas cycling and substantially increase the gas take consistent with the gas contract. Under the terms of the contract it is estimated that we would produce at a rate of 175 million cubic feet maximum daily. Your company has a 19% interest in the oil zone and a 38% interest in the gas zone of the Harmattan Elkton Rundle C pool. The proposed operation will improve the current income position due to gas sales and will also result in a better oil recovery.



s processing plant at Ferrier, Southwestern Alberta.

Gas	
Processing	
Plants	

in which
Canadian Superior
has a Working Interest

			Daily Capacities	
Plant Location	Company Interest (%)	Residue Gas (MMCF/D)	Plant Liquids (BBL/D)	Sulphur Prod. (LT/D)
Bellis	7.0	8		_
Berrymoor	8.3	10	100	
Calgary-Crossfield	1.9	220	7,500	2,100
Carstairs Crossfield	13.3	280	18,600	50
Carstairs North	14.3	4	100	
East Crossfield Elkton .	5.0	35	2,250	
East Crossfield D-1	30.9	54	500	1,500
Edson	.7	274	2,900	225
Ferrier	42.5	84	9,500	
Flat Lake	12.6	24		
Ghost Pine	.7	85	680	
Gilby 1	36.5	9	130	_
Gilby 2	7.8	52	2,250	
Harmattan Leduc	43.9	15		800
Harmattan Area	39.7		17,780	
Innisfail	33.2	10	400	115
Kaybob Notikewin	3.5	75	400	
Lobstick Glauconite	1.3	22	150	
Lone Pine South*	66.7	21	600	140
Marten Hills	1.0	16		
Minnehik-Buck Lake	8.0	63	1,200	30
Nevis	4.9	68	1,300	200
Paddle River	.5	28	120	
Rimbey	.1	357	28,600	325
Rosebud	12.7	3	<u></u>	_
South Elkton	23.2	5	150	
South Kaybob 1	6.0	120	20,210	1,000
South Kaybob 2	7.4	120	20,210	1,000
South Kaybob 3 *	.1	284	50,720	2,850
Sylvan Lake 1	2.7	53	2,090	10
Sylvan Lake 2	5.3	26	1,250	
Three Hills 1	2.3	14	200	
Three Hills 2	4.0	10	140	—
Willesden Green	.5	8	500	
Wilson Creek	21.2	10	200	
Wimborne	1.0	43	2,750	300
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\*Under construction

Oilfield gas handling capacity was increased during the year to approximately 21 million cubic feet per day enabling a higher level of oilfield production in line with improving oil allowables.

# Harmattan East Field, South Central Alberta

Enlargement of gas conservation facilities in this field to 34 million cubic feet per day has been completed to enable production of the increased Alberta oil allowables. The conserved gas is being injected into the reservoir for pressure maintenance purposes. Canadian Superior's interest approximates 42%.

Engineering studies similar to those prepared for Harmattan Elkton are currently being performed to determine the optimum operational program for the field.

# Lone Pine Creek Plant, South Central Alberta

Canadian Superior as operator has started construction of the Lone Pine Creek South Processing Plant, approximately 40 miles north of Calgary. This plant will have a daily capacity to process 30 million cubic feet of raw gas resulting in 22 million cubic feet of residue gas, 564 barrels of condensate and 133 long tons of sulphur.

It is anticipated that the company will have an approximate 60% interest after unitization.

# Ferrier Field and Gas Plant, Southwestern Alberta

The Ferrier gas processing plant in which Canadian Superior has a 42.5% interest came on stream in February 1970 and has exceeded production expectations. The company's share of production in 1970 averaged 1,035 barrels of condensate and 1,198 barrels of propane and butane daily. In addition, net gas sales accruing to the company averaged 27.7 million cubic feet daily.

Additional oilfield gas compressors are being installed to handle the increased gas production commensurate with higher oil allowables.

# Zama Field, Northwestern Alberta

Studies continue from last year involving primary depletion, enhanced recovery and production integration of Canadian Superior's 18 operated wells.

The field is producing under natural depletion with the exception of two pools pressure-maintained by bottom water injection. Canadian Superior has a 50% interest in these pools.

The company intends to seek approval from the Alberta Oil and Gas Conservation Board to institute water injection in applicable pools to improve recovery efficiency.

# Inga Field, Northeastern British Columbia

The gas cap area associated with the Inga oil field (Inga Unit No. 1) has been unitized under the name Inga Unit No. 3. This unit in which the company has a 16% interest will commence production in the second quarter of 1971 at 10 million cubic feet of gas per day. It is intended to replace the gas-cap voidage by water injection in order to prevent recovery losses in the underlying oil pool.

During the year, Inga Unit No. 1 began conserving oilfield gas. Canadian Superior has a 30% working interest in this oil unit where waterflood operations have been underway since 1969.

Both of these units are operated by Canadian Superior.



Grading construction site at Lone Pine Creek.

# Marketing

# Crude Oil and Condensate

Crude oil sales were 11% higher than the previous year and these revenues account for 51% of the company's gross operating income.

Condensate sales which account for 18% of operating income grew 32% in 1970.

A general price increase of  $25\phi$  per barrel for Canadian crude oil became effective in December 1970. This increase in well-head price is the first in over eight years for the industry, although finding and producing costs have been increasing substantially each year.

During the year the United States permitted higher imports of Canadian crude oil and natural gas liquids. This demand is expected to grow due to the pressures emanating from negotiations between international companies and the Organization of Petroleum Exporting Countries (OPEC). The higher taxes and well-head prices demanded by these major producing countries will result in significant increases in the cost of imported offshore crude for Canada and the United States.

# Liquefied Petroleum Gas

Propane and butane amounting to 4% of total operating income, increased 44% over 1969.

Your company's 50% interest in Hardisty Storage Ltd. which provides storage and fractionating facilities, has assisted in this improvement. Seasonal surpluses of propane and butane are injected into four underground salt caverns. This avoids undesirable reinjection of product and enables the company to establish a more profitable pricing structure throughout the year while at the same time satisfying its customers' peak winter demands. Capacity of the underground caverns is continuously being increased to meet the Company's needs.

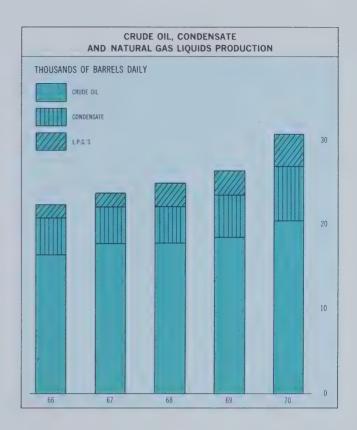
After ensuring that total Canadian demand was satisfied, the balance of the company's production was marketed into 23 states in the United States. A small portion of the company's production of propane was sold for delivery into the Japanese market.

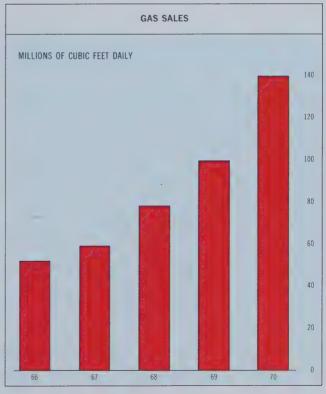
# **Natural Gas**

Natural gas sales which represented 22% of the total operating revenue, expanded 44% over the prior year. The growing demand for all forms of energy and the pressures being created by ecological and environmental controls favor a continuing and increasing demand for natural gas.

# Sulphur

Although a daily average of 651 long tons of sulphur were sold during the year, a 22% increase over last year's sales, revenue was down 58%. Income from





# 1970 Sales by Major Fields and Areas

	Oil (Bbls.)	Condensate (Bbls.)	L.P.G. (Bbls.)	Gas (Mcf.)	Sulphur (Long Tons)	Gross Operating Revenue
Alberta						
Harmattan	1,239,907	947,258	595,787	1,838,073	58,106	\$ 7,139,313
Crossfield Carstairs.	32,107	402,446	256,508	22,149,716	172,780	6,244,708
Ferrier	276,220	330,198	382,393	8,837,116	_	3,441,077
Pembina	1,045,781	2,070	_	770,830	_	2,822,406
Innisfail	662,559	27,736	-	589,746	-	1,922,042
Kaybob	_	442,607	67,738	1,354,351	5,950 >	1,656,003
Clive	283,387	_		267,304	_	780,074
Olds	243,637	11,992	7,832	976,969	_	758,872
Swan Hills	268,685	-	_	_	-	735,673
Zama	250,830	_	<b>2000</b>	-	_	495,993
Joffre	183,959		_	_	_	477,799
Cherhill-Alexis	218,602 36,034	- 45,485	27,900	1 250 792	_	448,135
~!!!	41,557	11,956	3,628	1,259,783 1,300,329	_	420,087 350,246
Gilby	41,557	60,992	28,354	834,967	- 849	346,374
Minnehik Buck Lake		19,939	20,554	1,289,163	-	305,288
Other	538,822	74,631	33,964	6,133,917	63	2,452,452
	5,322,087	2,377,310	1,404,104	47,602,264	237,748	30,796,542
Saskatchewan						
Steelman	529,024	_	_	274,413	Bioten	1,432,344
Weyburn	512,740	-	_	_	_	1,186,920
Midale	368,325		-		****	853,599
Other	154,340	-	-	139,693	_	397,518
	1,564,429		White	414,106		3,870,381
British Columbia						
Inga	382,657	_		227,688	_	969,249
Other	49,104		-	1,371,928		259,091
	431,761		-	1,599,616	-	1,228,340
Manitoba	122,015	-	_	_	-	305,073
CANADA	7,440,292	2,377,310	1,404,104	49,615,986	237,748	36,200,336
Foreign						
United Kingdom	_	4,296		1,131,114		346,929
TOTAL	7,440,292	2,381,606	1,404,104	50,747,100	237,748	\$36,547,265

sulphur represented 5% of the company's gross operating income as opposed to 19% in 1968 and 13% in 1969.

Prices continued to decline in the North American and international markets as a result of continued surplus production over demand. Major areas of increasing production include Canada, Poland and the Middle East.

Increased transportation costs have also had a significant effect on sulphur income. Ocean and railway freight rates, which increased 14% to 80%, have weakened Canada's competitive position in domestic and offshore sales.

Early in 1971, Canadian Superior began delivering dry sulphur in slate form. When the conversion to this form of sulphur is complete, it will greatly reduce the dusting problem during loading and handling operations— a major contribution to pollution control.

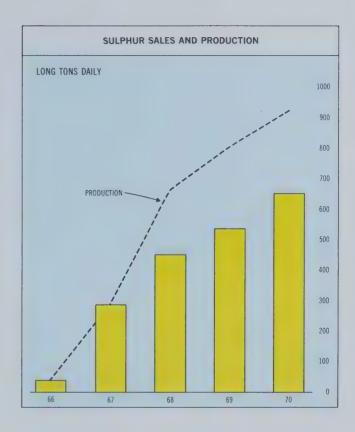
During the year offshore sales were made in Austria, France, Germany, India, Holland, Taiwan, United Kingdom, The Republic of South Africa, Switzerland and Pakistan.

# **Transportation**

In contrast to 1969's L.P.G. fleet of 133 cars, 117 additional cars were added in 1970 making a total of 250 cars. This expansion was necessary because of the increase in production and sales of L.P.G.

Canadian Superior's liquid sulphur sales were transported throughout North America by its fleet of 100 tank cars. During 1970 the total mileage travelled by the Company's tank car fleet was 7,250,000 miles, an increase of 45% over the previous year. Shipments of sulphur to foreign countries were handled as dry bulk cargo from various Alberta plants to Vancouver then via ocean vessels to offshore markets.





# **Foreign Activities**

### Australasia

As of December 31, 1970, Canadian Superior Oil (Aust.) Pty. Ltd. held varying interests in Australasian oil and gas exploration permits totalling 44,000 square miles with a net interest of 5,000 square miles. This is a reduction since the end of 1969 of 200 net square miles, resulting from relinquishment of one block in the Timor Sea, after seismic exploration showed no drillable anomalies.

The areas of interest, as shown on the map, include the Gulf of Papua, Bonaparte Gulf and Offshore Carnarvon; Canadian Superior's interest being 15%, 13% and 7½% respectively. Exploratory drilling was carried out on the above prospects during 1969, but no drilling took place in 1970. As a result of a further government extension of our drilling commitment in the Gulf of Papua, no drilling is anticipated in 1971 and no firm agreement has been reached for the resumption of drilling in this area by Canadian Superior and its partners.

In the Bonaparte Gulf, drilling by other concession-holders has resulted in a gas discovery 80 miles from our permit boundary. Currently, a step-out to the gas discovery and a wildcat approximately 40 miles from our concession are being drilled.

Under a farmout agreement, additional seismic work was conducted in the Carnarvon block. This may lead to a further well being drilled whereby the farmee company would earn a 50% interest in a portion of the permit.



### Southeast Asia

On the 94,000 square mile offshore concession in the Arafura Sea (see map), Canadian Superior, with its 10% interest, participated in an additional 2,610 miles of marine seismic and in 15,538 feet of offshore drilling. Two wells were abandoned with no significant shows of oil or gas. At least two more wells will be drilled in this area during 1971 after an additional 1,044 miles of seismic program has been completed and evaluated.

Currently, Canadian Superior with The Superior Oil Company, is investigating other southeast Asian areas where potential Tertiary basins are thought to exist offshore bordering the Asian mainland. A total of 6,273 miles of seismic profiles were purchased in these areas to assist in stratigraphic and structural appraisals, pending future land sales by the countries concerned. Plans for opening an office in Singapore, the centre for southeast Asian petroleum activity, are being considered.

# Sivas Basin, Turkey

Preliminary photogeological assessment was done this summer in east central Turkey where Canadian Superior has a 15% interest in 741,000 acres.

Further assessment will be contingent on the result of an exploratory well sponsored by the Turkish government to be drilled in the Sivas Basin between blocks held by your company's group.

### Offshore Malta, Mediterranean Sea

Canadian Superior along with four other Calgary-based oil companies received exploration rights covering a 431,000 acre area in the Mediterranean from the Maltese government. This area is located immediately east of the coast of Malta. A marine seismic program is being planned for the summer of this year and will be followed by the drilling of at least one test well.

# North Sea

No exploration drilling was carried out off the north coast of the United Kingdom during 1970. However, our group (ARPET) has been actively conducting geophysical studies in the Irish Sea and other offshore areas where acreage is still available in potential hydrocarbon basins.

Gas sales from the Hewett and Leman fields have continued to increase as called for under the sales agreement.

No drilling was undertaken off the coast of the Netherlands, but exploratory drilling by others has enhanced the potential for gas and oil on our group's undeveloped acreage.

### Gulf of Mexico

Canadian Superior was successful in acquiring interests in four Federal lease sale blocks in offshore Louisiana. The company has an 11.1% interest in South Marsh Island block numbers 121 and 122, a 5% interest in block 296 and a 5.6% interest in block 306 (Eugene Island). The company's share of the total bonus costs amounted to U.S. \$3,430,000. The operator for our group is now drilling a test well on block 296 and has proposed a location on block 306. Early testing on blocks 121 and 122 is also anticipated.

There were four wells drilled offshore Texas during 1970. Two of these were exploratory tests and one resulted in a gas condensate discovery. Two subsequent development wells were drilled to evaluate the commercial aspects of the discovery and a third is currently drilling.

# West Coast, Greenland

A marine seismic survey off the west coast of Greenland was completed this summer by Canadian Superior and its partners. The survey consisted of 2,010 nautical miles. Exclusive exploration rights for offshore drilling have not yet been given by the Danish government.

# **Minerals Exploration**

### Canada and the United States

During 1970, Canadian Superior Oil Ltd., through its subsidiary company, Canadian Superior Exploration Limited, participated in eleven specific exploration projects in Canada and the United States and in property appraisals and general prospecting. Work was done in British Columbia, the Northwest Territories, the Yukon, Ontario, Washington, Idaho, Montana and Texas. Most of the effort was directed toward exploring for copper, molybdenum and nickel.

Canadian Superior Exploration Limited has ten geologists on staff and maintains exploration offices in Vancouver, Kamloops, Smithers, Spokane and Whitehorse. Expenditures on mineral exploration on behalf of Canadian Superior Oil Ltd. totalled \$415,000 in 1970 and a program of similar magnitude is planned for 1971.

# **Coal Exploration**

Together with McIntyre Porcupine Mines and The Superior Oil Company, Canadian Superior entered a new coal exploration phase under an agreement to evaluate the potential of certain lands in the central foothills of British Columbia and 48 square miles of coal permit lands in the Kakwa River area of Alberta.



The "Seafoy II," conducting coring operations in the Gulf of Carpentaria.

These rights are within the foothills trend of known coking quality coals which are now being mined for the Japanese market. During the next year it is anticipated that over \$250,000 will be spent on assessment work.

Canadian Superior with The Superior Oil Company as an equal partner holds coal permit rights on 96 square miles in the Ram River area located 90 miles northwest of Calgary.

### Australasia

The company has maintained a 25% participation with McIntyre Porcupine Mines in mineral exploration in Australasia, and in investigations in southeast Asia.

In Australasia we have an interest in 309 mineral claims and 10 prospecting permits totalling 101,000 acres and 22,000 square miles respectively. Most of the mineral claims are located in the Western Australia nickel belt.

In the Gulf of Carpentaria, the company has an 1834% interest in a 10,000 square mile offshore bauxite prospecting permit that was farmed in from Ocean Resources N.L. The permit adjoins the bauxite operations of Weipa, the world's largest single deposit of bauxite. Results from seafloor drill holes and seismic surveys are being evaluated.

The company also has a  $12\frac{1}{2}\%$  interest in a 10,000 square mile bauxite permit in southeast Papua that has been farmed out to Comalco Ltd., operators at Weipa. During 1970, surface sampling and airborne radiation surveys were conducted with negative results.

In New Zealand, the company has interests in 14 mining permits totalling 187,773 acres that have been farmed out to other companies.

# **Financial**

Operating revenues in 1970 for oil, gas and liquid products were the highest in the company's history, increasing \$6.4 million, or 22.3% over the prior year. Revenue from sulphur sales however, continued to deteriorate and fell 58% below 1969 levels. The net result was a 12% gain from all product sales.

Operating expenses during 1970 increased significantly due to several factors; new plants at Ferrier and Kaybob, new fields and well additions and improved facilities to meet anticipated higher allowables in 1971. Adjustments to sulphur inventory costs also contributed heavily to the year's comparatively higher expenses.

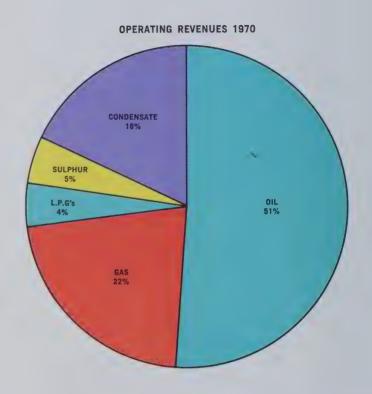
Income from all sources (before a non-recurring gain on the sale of securities of \$807,462) increased 12.7% to \$38 million. Funds provided from operations before drilling and exploration expenditures amounted to \$22,876,939, or \$2.69 per share compared with \$2.66 per share in the prior year. This marginal increase is a reflection of the higher operating expenses referred to above, as well as the increased provision for income taxes.

Net income amounted to \$3,701,065, or  $44\phi$  per share after including the gain on the sale of securities. This compares with \$4,070,744, or  $48\phi$  per share for the prior year.

In April 1970, the company received a prepayment from Trans-Canada Pipe Lines Limited of \$11,340,000 for the contracting for the sale of its natural gas reserves in the Harmattan Elkton and Harmattan East fields in southern Alberta. The prepayment is repayable from a portion of future gas sales from the fields.

A strong working capital position with net current assets at the year end of \$17,770,050 will enable the company to participate in economically promising projects or acquisitions.

In addition to the funds expended for lease acquisition in offshore Louisiana totalling \$3,481,000, a further \$268,000 was spent in exploration and drilling



in the United States primarily in the offshore Gulf Coast area. In February, 1971 the first well was spudded on Block 296, Eugene Island.

During 1970, \$697,000 was spent in petroleum and minerals exploration in Australia and New Zealand. In Indonesia exploration and drilling expenditures totalled \$355,000. In the North Sea, capital, operating and minor exploration costs totalled \$146,000. Revenues from the company's share of gas sales in the United Kingdom sector of the North Sea amounted to \$347,000. Other miscellaneous foreign expenditures totalled \$103,000. In summary, total net expenditures incurred outside of Canada amounted to \$4,703,000, up substantially over 1969 net foreign expenditures of \$1,606,000.



# Consolidated Statement of Income and Retained Earnings

For the years ended December 31, 1970 and 1969

	1970	1969
Income		
Gross operating income	\$36,547,265	\$32,637,849
Interest, dividends and other income	1,456,334	1,073,304
	38,003,599	33,711,153
Expenses		
Operating, administrative and general expenses	10,014,126	6,945,067
Interest on long term debt	244,971	485,052
Rents of undeveloped properties	2,097,776	2,054,980
Exploration expenses	4,829,144	5,129,074
Intangible drilling expenditures (Note 1)	5,568,344	4,668,532
Depreciation (Note 1)	5,078,582	4,415,313
Depletion (Note 1)	478,923	360,817
Amortization of exploration and preproduction expenditures (Note 1)	3,151,505	2,612,578
Leases abandoned	537,838	487,996
	32,001,209	27,159,409
Income Before Income Taxes	6,002,390	6,551,744
Provision for income taxes (Note 2)		
Current	2,769,787	1,649,000
Deferred	339,000	832,000
	3,108,787	2,481,000
Income Before Extraordinary Item	-2,893,603	4,070,744
Gain on sale of securities	807,462	1,070,744
Gain on sale of securities		
Net Income	3,701,065	4,070,744
Retained Earnings at Beginning of Year	52,140,359	48,069,615
Retained Earnings at End of Year	\$55,841,424	\$52,140,359
	Per S	Share
Income before extraordinary item	\$ .34	\$ .48
Extraordinary item	.10	
Net income	.44	.48



# Consolidated Balance Sheet at December 31, 1970 and 1969

# **Assets**

	1970	1969
Current Assets		
Cash	\$ 760,891 13,890,000 9,065,033	\$ 1,200,384 1,741,800 6,570,232
Sulphur and liquid products	2,504,673 590,234	3,242,220 878,746
	26,810,831	13,633,382
Refundable Deposits	35,465	138,921
Notes Receivable	1,053,000	983,000
Investments, at cost		
McIntyre Porcupine Mines Limited (quoted market value 1970 \$12,744,875; 1969 \$13,368,750)	9,005,499 1,852,249 10,857,748	9,005,499 1,636,632 10,642,131
Properties, Plant and Equipment, at cost		
Undeveloped properties	32,879,300 15,399,445 29,331,176 36,773,473 2,210,477	28,926,706 13,737,466 27,286,204 34,321,821 2,368,807
Less: Accumulated depreciation and depletion (Note 1)	116,593,871 40,037,425	106,641,004 35,029,792
Unamortized balance of exploration and preproduction expenditures (Note 1)	76,556,446 3,530,827	71,611,212 6,682,332
	80,087,273	78,293,544
Deferred Charges		
Prepaid lease rentals	985,121 367,112	922,393 473,358
	1,352,233	1,395,751
	\$120,196,550	\$105,086,729

# Liabilities

	1970	1969
Current Liabilities		
Accounts payable	\$ 7,218,994	\$ 3,995,377
Income taxes payable	1,121,787	1,028,000
Current portion of bank loan		1,400,000
	9,040,781	6,423,377
Bank Loan, less current portion (Note 3)	1,400,000	4,200,000
		<del></del>
Prepaid Gas Revenue April 1990, and the second of the seco	11,777,352	525,000
Deferred Income Taxes (Note 2) . T	3,977,000	3,638,000
Shareholders' Equity		
Capital stock of \$1 par value (Note 5) Authorized - 10,000,000 shares		
Issued and outstanding - 8,501,516 shares	8,501,516	8,501,516
Capital in excess of par value	29,658,477	29,658,477
Retained earnings, per accompanying statement	55,841,424	52,140,359
	94,001,417	90,300,352

# Contingent Liabilities (Note 4)

# Approved on behalf of the Board

A. E. FELDMEYER, Director

J. W. PYLE, Director

\$120,196,550 \$105,086,729



# Consolidated Statement of Source and Use of Funds

For the years ended December 31, 1970 and 1969

	<u>1970</u>	<u>1969</u>
Source of Funds		
Income before extraordinary item	\$ 2,893,603	\$ 4,070,744
Add charges to income not requiring the use of funds including depreciation, depletion, amortization, leases abandoned	`	
and deferred income taxes	9,585,848	8,708,704
	12,479,451	12,779,448
Add drilling and exploration expenditures	10,397,488	9,797,606
Funds provided from operations  before drilling and exploration expenditures	22,876,939	22,577,054
Proceeds from sale of securities	917,532	—
Prepaid gas revenue	11,340,000	525,000
Miscellaneous	279,407	592,702
	35,413,878	23,694,756
Use of Funds Capital expenditures		
Capital expenditures  Lease acquisition	6,137,602	4,526,022
Plant and equipment	5,012,712	8,780,906
Intangible drilling costs	5,568,344	4,668,532
Exploration expenditures	4,829,144	5,129,074
Total capital, drilling and exploration expenditures	21,547,802	23,104,534
Investment in other companies	395,687	226,140
Decrease in long term debt	2,800,000	1,400,000
Decrease in prepaid gas revenue	87,648	_
Miscellaneous	22,696	31,534
	24,853,833	24,762,208
Increase (decrease) in Working Capital	\$10,560,045	\$(1,067,452)

# **Notes to Financial Statements**

# 1. Accounting Policies

Depletion of producing properties is being provided for by the unit of production method based on estimated recoverable reserves of oil and gas. The accumulated depletion as at December 31, 1970 amounted to \$2,947,359.

Depreciation is provided by the diminishing balance method at the following rates:

Exploration expenditures and intangible drilling expenditures applicable to both producing wells and dry holes are charged to income as incurred.

Amortization of exploration and preproduction expenditures incurred to August 31, 1958 is being provided for by the unit of production method based on estimated recoverable reserves of oil and gas as at that date.

### 2. Income Tax

For income tax purposes the company has claimed drilling, exploration, lease acquisition costs and capital cost allowances (depreciation) in excess of the amounts charged in the accounts. As a result income taxes otherwise payable for the year have been reduced.

The Canadian Institute of Chartered Accountants has recommended the income tax allocation method of accounting whereby the income tax provision is based on the income reported in the accounts. Management, however, does not consider it appropriate to apply this method to differences in the timing of deductions for tax and accounting purposes with respect to drilling, exploration and lease acquisition costs; this view conforms with general practice in the oil and gas industry and is accepted by accounting authorities outside Canada. If the tax allocation basis had been followed for timing differences involving such costs, the deferred tax provision would have been decreased by \$200,000 for 1970 (increased by \$600,000 for 1969) and increased \$14,400,000 on a cumulative basis to December 31, 1970.

### 3. Bank Loan

The bank loan is secured by a general assignment of hydrocarbons under Section 82 of the Bank Act and is repayable in twelve quarterly instalments of \$175,000 each with the final instalment due October 1, 1973.

# 4. Commitments and Contingent Liabilities

The company has a lease on office premises which expires in 1990 (with an option to renew). Under the terms of the lease the company is required to pay an annual net rental of \$577,000.

The company might be required under certain conditions to make payments under guarantee and other contractual arrangements principally in connection with:

- (a) pipe line transportation, product storage, and
- (b) the issuing to and depositing with the federal and provincial governments of non-interest bearing demand promissory notes to be held as work performance deposits in respect of exploratory rights.

The contingent liability under such arrangements does not exceed \$9,000,000.

# 5. Stock Options

Under the company's stock option plan options have been granted to certain officers and key employees of the company and its subsidiaries at prices not lower than 90% of the market value on date of grant. The options are exercisable from time to time on a cumulative basis and expire in 1979. No options were exercised during the year. As at December 31, 1970 options for 82,500 shares were outstanding and 67,500 shares were available for future grants.

### 6. Statutory Information

During 1970 there were eleven directors and eight officers (as defined by The Canada Corporations Act) of whom seven were also directors

Officers' remuneration and directors' fees for 1970 amounted to \$367,517 and \$1,000 respectively.

# **Auditors' Report**

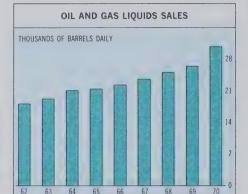
To the Shareholders of CANADIAN SUPERIOR OIL LTD.

We have examined the consolidated balance sheet of Canadian Superior Oil Ltd. and its subsidiaries as at December 31, 1970 and the consolidated statements of income and retained earnings and source and use of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

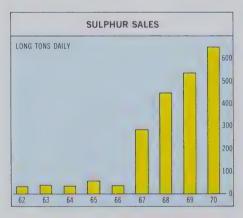
In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1970 and the results of their operations and the source and use of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

CALGARY, Alberta February 12, 1971 PRICE WATERHOUSE & CO.
Chartered Accountants





# MILLIONS OF CUBIC FEET DAILY 140 120 100 80 60 40 20 62 63 64 65 66 67 68 69 70

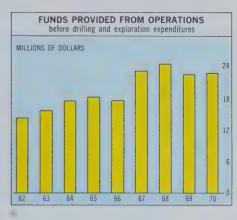


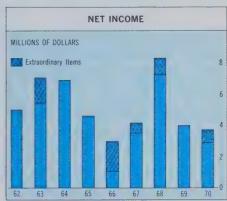


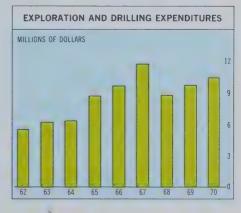
# Ten Year Summary

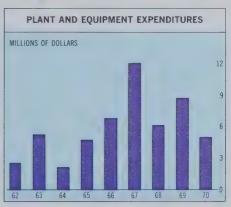
	1970	1969	1968	1967
Gross Revenue	\$38,003,599	33,711,153	33,143,842	30,875,6
Funds provided from operations - before drilling and exploration				
expenditures	\$22,876,939	22,577,054	24,688,894	23,259,0
Per Share	\$2.69	2.66	2.90	2.74
Income before extraordinary items	\$ 2,893,603	4,070,744	7,384,811	3,726,2
Per Share	\$ 2,893,003	.48	.87	.44
	\$ 807,462	.40	1,117,918	619,5
Extraordinary items	\$ .10	_	.13	.07
Per Share	\$ 3,701,065	4,070,744	8,502,729	4,345,7
Per Share	\$ 3,701,003	.48	1.00	.51
Working Capital at Year-End	\$17,770,050	7,210,005	8,277,457	4,284,2
	\$17,770,030	7,210,003	0,277,437	4,204,2
EXPENDITURES:	A ( 127 ( 0 2	4.50(.000	( 0 4 0 7 ( 0	2.144.2
Oil and Gas Properties	\$ 6,137,602	4,526,022	6,849,768	3,144,3
Plant and Equipment	5,012,712	8,780,906	6,091,539	12,042,9
Intangible Drilling	5,568,344	4,668,532	4,835,251	7,607,5
Exploration	4,829,144	5,129,074	4,026,409	4,100,2
	\$21,547,802	23,104,534	21,802,967	26,895,1
NET ACREAGE IN CANADA .	9,898,492	9,198,557	8,643,160	6,339,9
NET WELLS COMPLETED:				
Oil	12.7	10.7	16.9	42.8
Gas	8.7	7.6	6.0	9.9
Dry	19.3	14.9	17.5	8:2
	40.7	33.2	40.4	60.9
AVERAGE NET DAILY SALES:				
Crude Oil (Bbls.)	20,384	18,612	17,881	17,758
Condensate (Bbls.)	6,525	5,006	4,333	4,182
Propane and Butane (Bbls.) .	3,847	2,771	2,705	1,684
Total Oil and Gas Liquids	30,756	26,389	24,919	23,624
Residue Gas (Mcf.)	139,033	99,797	78,103	59,390
Sulphur (Long Tons)	651	534	449	284

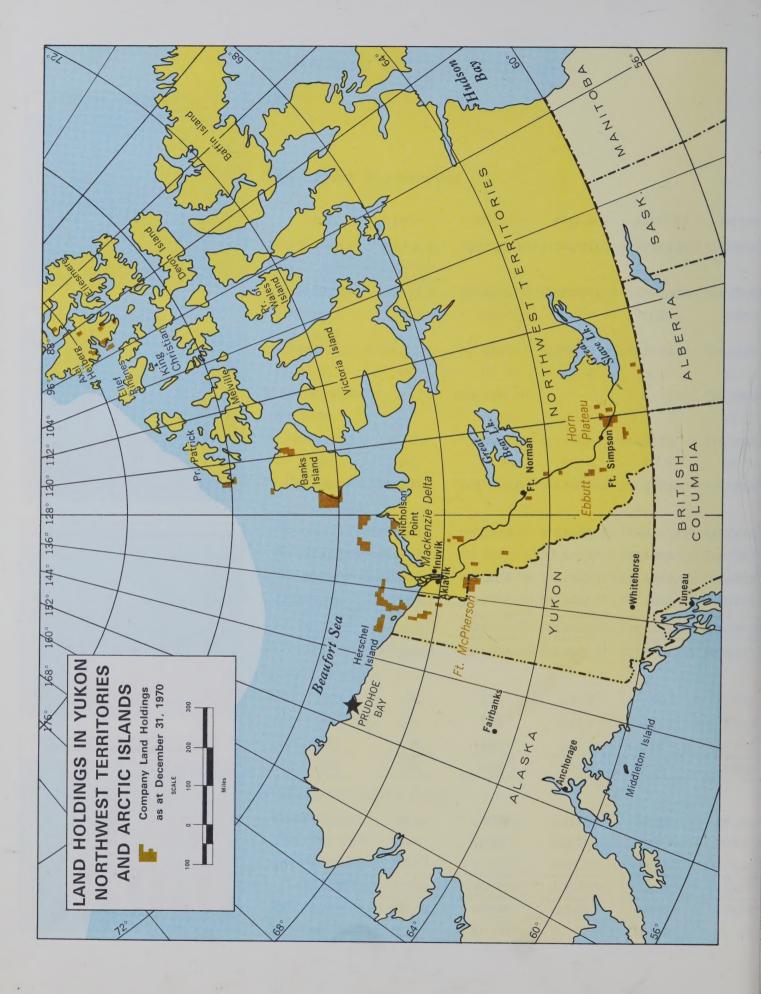
1966	1965	1964	1963	1962	1961
24,297,814	24,395,528	23,096,911	20,841,241	19,087,459	15,237,518
17,778,607	18,297,187	17,623,639	15,521,751	14,411,428	10,517,125
2.09	2.15	2.07	1.83	1.70	1.24
1,088,245	4,715,474	6,891,254	5,506,734	5,021,282	2,765,878
.13	.55	.81	.65	.59	.33
2,000,000	-	-	1,705,483	_	547,300
.23	-	-	.20	-	.06
3,088,245	4,715,474	6,891,254	7,212,217	5,021,282	3,313,178
.36	.55	.81	.85	.59	.39
9,287,969	11,537,797	17,091,450	13,403,972	8,331,773	7,820,330
2,843,914	10,403,097	5,419,213	4,222,249	4,350,909	1,514,411
6,813,818	4,802,032	2,142,120	5,253,134	2,523,842	2,423,840
6,224,491	5,418,643	2,709,101	3,050,118	3,542,613	2,703,029
3,425,670	3,301,719	3,479,768	3,084,135	1,913,028	989,304
19,307,893	23,925,491	13,750,202	15,609,636	12,330,392	7,630,584
7,044,794	7,345,277	7,346,842	6,756,625	6,706,958	5,641,089
25.7	30.7	15.4	13.0	16.7	27.6
8.8	7.4	5.6	6.7	10.5	8.9
18.5	23.1	16.7	24.6	21.9	10.4
53.0	61.2	37.7	44.3	49.1	46.9
16,269	16,087	17,054	16,939	16,399	14,417
4,360	4,556	3,608	2,233	1,643	787
1,572	694	366	6	5	5
22,201	21,337	21,028	19,178	18,047	15,209
51,686	52,403	45,325	40,994	38,105	23,848
37	58	36	38	32	19
,					













Map showing
acreage holdings
of
CANADIAN SUPERIOR OIL LTD.
1970

# CANADIAN SUPERIOR OIL LTD. acreage holdings in Western Provinces

